



U.S. Fish and Wildlife Service

Gray Wolf Recovery in Minnesota, Wisconsin, and Michigan

All of Minnesota, Wisconsin, and Michigan (as well as adjacent states) were once home to gray wolves. Killing by humans and declining numbers of prey - bison, elk, and white-tailed deer in the south and moose, deer, caribou, and beaver in the north - caused wolf declines early on. By 1838, wolves were eliminated from the southern portion of the lower peninsula of Michigan. Bounties paid for dead wolves began during the 1800s and by the early 1900s wolves were also gone from southern Minnesota and Wisconsin. By 1960 wolves were nearly eliminated from Wisconsin, Michigan (except Isle Royale), and most of Minnesota.

State laws in Wisconsin and Michigan protected wolves prior to 1973, the year the Endangered Species Act (ESA) was passed, but were too late to be effective. By the time Wisconsin gave the wolf protection in 1957, the species was extirpated from the State. Michigan followed suit in 1965 with endangered species protection for the gray wolf. At

that time only a few lone wolves remained in the Upper Peninsula and an isolated population existed on Isle Royale.

In Minnesota, a bounty on wolves and all predators continued until 1965. Between 1965 and 1974, Minnesota had an open season on wolves and the State conducted a Directed Predator Control Program. With the control program and other kills, about 250 wolves were taken in Minnesota each year. During this time, the wolf population was estimated at 350 to 700 animals. The State's control program and open season continued until May 1974, when the gray wolf gained protection under the ESA.

Wolf Recovery

Perhaps the most important factor leading to wolf recovery in the Midwest was the ESA's legal protection against killing or harming wolves. Another factor was the ESA requirement that a Recovery Plan be prepared. That plan focused time, money, and energy on the most important conservation actions. Additionally, wolves rebounded because their primary prey, white-tailed deer, were doing well. Deer herds in Minnesota, Wisconsin, and Michigan increased through the 1980s and early 1990s because of mild winters and timber harvests that created prime habitat.

Recovery criteria for the wolf, as established in the Recovery Plan, includes the assured survival of the gray wolf in Minnesota and a population of 100 or more wolves in Wisconsin/Michigan for a minimum of five consecutive years. The Recovery Plan identified 1,250 to 1,400 as a population goal for Minnesota. The state's wolf population has been at or above that level since the late 1970s, thus achieving the numerical criteria for assuring survival of the wolf in Minnesota. The Wisconsin/Michigan

wolf population has been above 100 since the winter of 1993-1994, achieving the latter numerical goal in the Recovery Plan.

With this consistent expansion in numbers and range, the gray wolf has been recovered in the eastern United States.

Minnesota

(Information from William Berg, formerly of the Minnesota Department of Natural Resources (DNR))
During the mid- to late 1970s, the Minnesota DNR estimated their wolf population at about 1,000 to 1,200. During the 1980s, researchers documented areas that wolves had recently colonized, which suggested that the numbers and range were increasing. Therefore, the Minnesota DNR conducted a 1988-89 winter survey that resulted in estimates of 1,500 to 1,750 wolves. A follow-up survey was conducted during 1997-1998 and, based on that survey, the DNR estimated the Minnesota wolf population at about 2,450.

During the last three decades, wolves increased their range in the northcentral and central parts of Minnesota. This successful range expansion was due to ESA protection from unregulated killing, high deer numbers, and dispersal of individuals from existing packs. Telemetry studies documented wolves dispersing from the major wolf range in northeastern Minnesota to recolonize new areas. Those studies also documented wolves dispersing from the few packs in northcentral Minnesota that were able to survive the "bounty era."

Today, wolves live in areas with higher road and human densities than previously believed to be suitable for wolf survival. Wolves continue to disperse to areas in west-central and



east-central Minnesota (just north of Minneapolis/St. Paul), North and South Dakota, and Wisconsin.

The Minnesota Legislature passed legislation in May of 2000 that established a framework for wolf management. Using that guidance, the Minnesota DNR, in consultation with the Minnesota Department of Agriculture, completed the Minnesota Wolf Management Plan in early 2001 that would be implemented if wolves are federally delisted. That plan delineates two wolf management zones and provides different levels of protection to wolves in the two areas. The plan also establishes a minimum State population goal of 1,600 wolves, and it defers any action on allowing a general public taking of wolves for five years following Federal delisting.

Wisconsin

(Information from Adrian P. Wydeven, Wisconsin DNR)

From 1960 to 1975 there were no breeding wolves in Wisconsin. But soon after the wolf was listed as federally endangered, wolves began re-establishing themselves in Wisconsin, apparently dispersing from adjacent Minnesota. The Wisconsin DNR began monitoring wolves in 1979 using trapping and radio-collaring, winter track surveys, and summer howling surveys.

When monitoring began, 25 wolves were documented in the State. During the mid-1980s wolf numbers reached a low of only 15, probably due to an epidemic of canine parvovirus which apparently killed many wolf pups. Wild wolves seemed to develop some degree of natural resistance and wolf numbers increased after 1985.

Since that time, the Wisconsin wolf population has steadily increased. Wolf population estimates (late winter counts) between 1985 and 2004 increased from 83 wolves comprising 18 packs to 373 wolves comprising 109 packs, respectively.

Parvovirus seems to be declining, but is still present in Wisconsin wolves. Lyme disease and mange are also present in this population but the impact of these diseases, particularly on pup survival, is not well known. Wisconsin wolf researchers continue to monitor wolf movements in the Wisconsin-Minnesota

border area, as well as the wolf range expansion southward into the central portion of the state.

The Wisconsin DNR held public meetings during 1996 to receive public input on development of a new State wolf management plan. A final plan was approved by the Wisconsin Natural Resources Board in October of 1999. That plan sets a management goal of 350 wolves in the State (outside of Indian Reservations). This goal was exceeded and Wisconsin is in the process of changing the wolf's status from "threatened" to "protected wild animal."

Michigan

(Information from James H. Hammill, formerly of the Michigan DNR)

As wolves began getting a foothold in Wisconsin during the late 1970s, biologists documented increasing numbers of single wolves in the Upper Peninsula of Michigan. Finally, in the late 1980s they documented a pair of wolves traveling together in the central Upper Peninsula. This pair had pups for the first time in the spring of 1991. The next year (summer of 1992), Wisconsin and Michigan DNR biologists radio-collared one of the wolves in the only known pack. By the end of 1992, Michigan biologists verified at least 20 wolves in the Upper Peninsula. Since then, except for 1996, numbers have steadily increased.

The end of the 1996-97 winter count found the number of wolves at 112, down from the 116 documented during the previous late winter count. That decline appears to have been due to two consecutive harsh winters and a high incidence of mange. In some areas of the Upper Peninsula, deer numbers were reduced by 80 percent due to record snow falls and low temperatures during the 1995-96 winter. This provided more prey for wolves during that winter but was followed by another severe winter with unusually deep snow in 1996-97. During that second winter there were few deer for wolves to prey upon and wolf deaths were high.

Since then, the Michigan Department of Natural Resources (DNR) completed several additional Upper Peninsula late winter wolf surveys. Trackers estimate that there were at least 174 wolves in 1998-99, increasing to 360 in 2003-2004. Thus, numbers have rebounded from the

previous year's decline. Radio-collaring and monitoring Michigan's wolf population continues.

Michigan, through the DNR, established a Michigan wolf recovery team that completed a Wolf Recovery and Management Plan in December 1997. The Michigan plan recommends managing for a minimum of 200 wolves on the Upper Peninsula.

In addition to wolves on the Upper Peninsula, there have been wolves residing on Isle Royale, Michigan, near the Minnesota-Ontario shore of Lake Superior, since the winter of 1948-49. Their population has moved up and down with that of their prime prey - moose. Disease is also believed to be an important factor in population fluctuations. Following a peak of 50 wolves in 1979, the population plummeted to the low teens in the late 1980s and early 1990s. They have since rebounded to 29 wolves. Due to their low numbers and near total isolation from other wolves, these wolves are not considered to be contributing to meeting the Federal recovery goals for gray wolves.

Minnesota Wolf Population

1973	500 to 1,000
1979	1,235
1989	1,500 to 1,750
1998	2,450

Wisconsin Wolf Population

1973	0
1980	25
1995	83
2000	248
2004	373

For more information see the U.S. Fish and Wildlife Service's Region 3 Website at <http://midwest.fws.gov/wolf> or call the Wolf Line at (612)713-7337.